



**Program Executive Office
Command, Control, Communications,
Computers and Intelligence (PEO C4I)**

Afloat Networks, ISNS & COMPOSE

C3F C4I Waterfront Conference

13 June 2007

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PEO C4I





Outline



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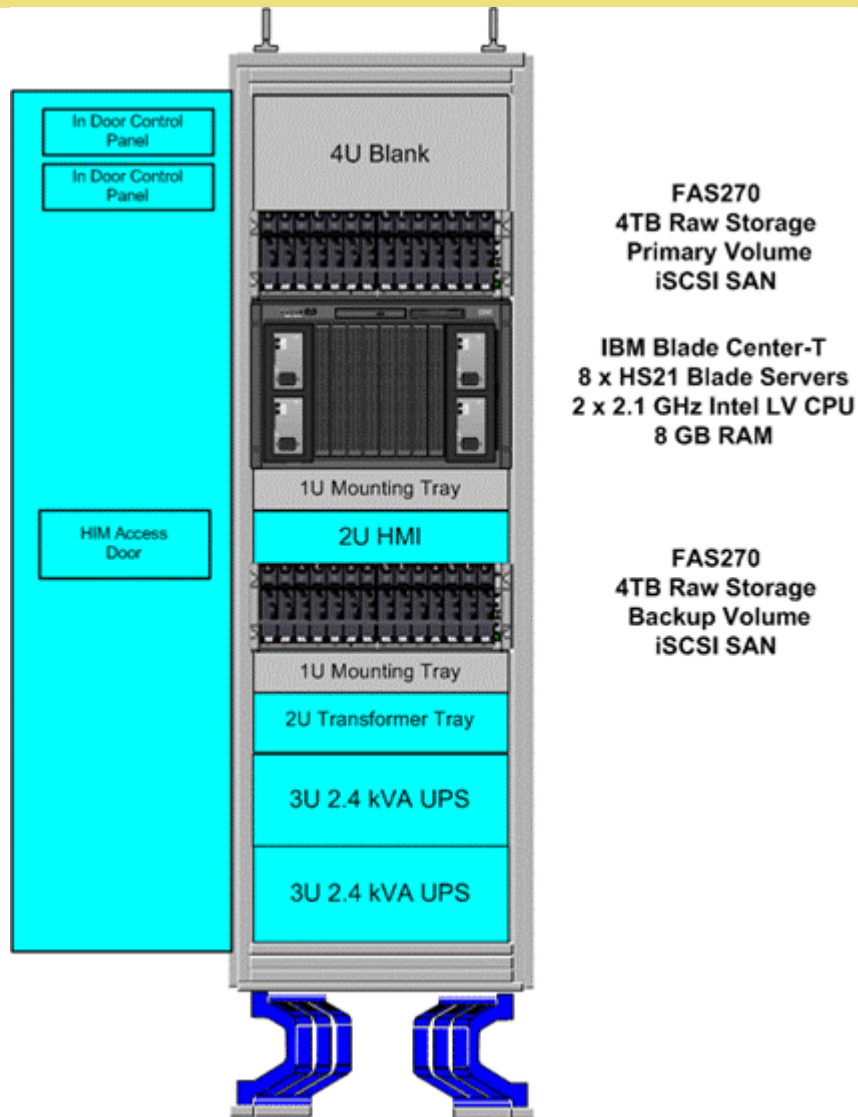


Integrated Shipboard Network System (ISNS) Inc 1 Production Mods

- ISNS Inc 1 Mods will successively build upon each other
 - Mod 1: ISNS EOL Production Mod
 - Blade Chassis with Blade Servers, Network Area Storage, Next Generation Backbone & Edge Switches (IOC: Mar 08)
 - Mod 2: Mod 1 plus Internal Wireless
 - Initial install Jul 08, IOC dependent upon Test (DT vs OT by COTF)
 - Mod 3: Mod 2 plus Compose 3.5
 - Initial install Jul 08, IOC dependent upon Test (DT vs OT by COTF)
 - Mod 4: Mod 3 plus Common Computing Environment (CCE)
 - IOC Q2 FY09
 - Allows Application Hosting for Early Adopters, adds 2nd Blade Server Rack to CG & DDGs and 3rd Blade Server rack to LHA, LHD & CVNs
 - Mod 5: Mod 4 plus Service Oriented Architecture (SOA)
 - IOC dependent upon SOA testing w/ Early Adopters (est. mid-FY09)



ISNS Inc 1 Production Mod Core Server Rack



- Number of Physical Servers:
 - 8
- Virtual Servers:
 - TBD
- Primary iSCSI SAN
 - Storage of apps and services
- Backup SAN
 - B/U of primary SAN
 - Minimum 30 Days capacity
- Operating Systems Supported:
 - COMPOSE 3.0
 - Windows 2003 Standard
 - Exchange 2003
 - SQL Server 2003 (potential)
 - Solaris x86
 - RHEL 3/4

NOTE: IBM Blade Servers support RHEL and Solaris; Fielding of these variants is TBD

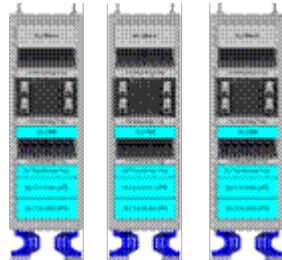


ISNS Inc 1 Prod Mod

Projected Final Builds (Mod 4/5)



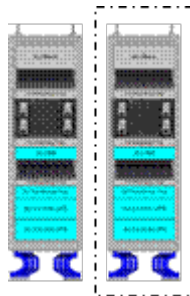
CVN
LHA
LHD



Per Security Enclave

Server s	Storage Capacity	Backup Capacity
24	12 TB	30 days

CG
DDG



Per Security Enclave

Server s	Storage Capacity	Backup Capacity
8 (16)	4 (8) TB	30 days

2nd Rack is currently a PR09 Unfunded Request

LSD
LPD*



Per Security Enclave

Server s	Storage Capacity	Backup Capacity
16	8 TB	30 days

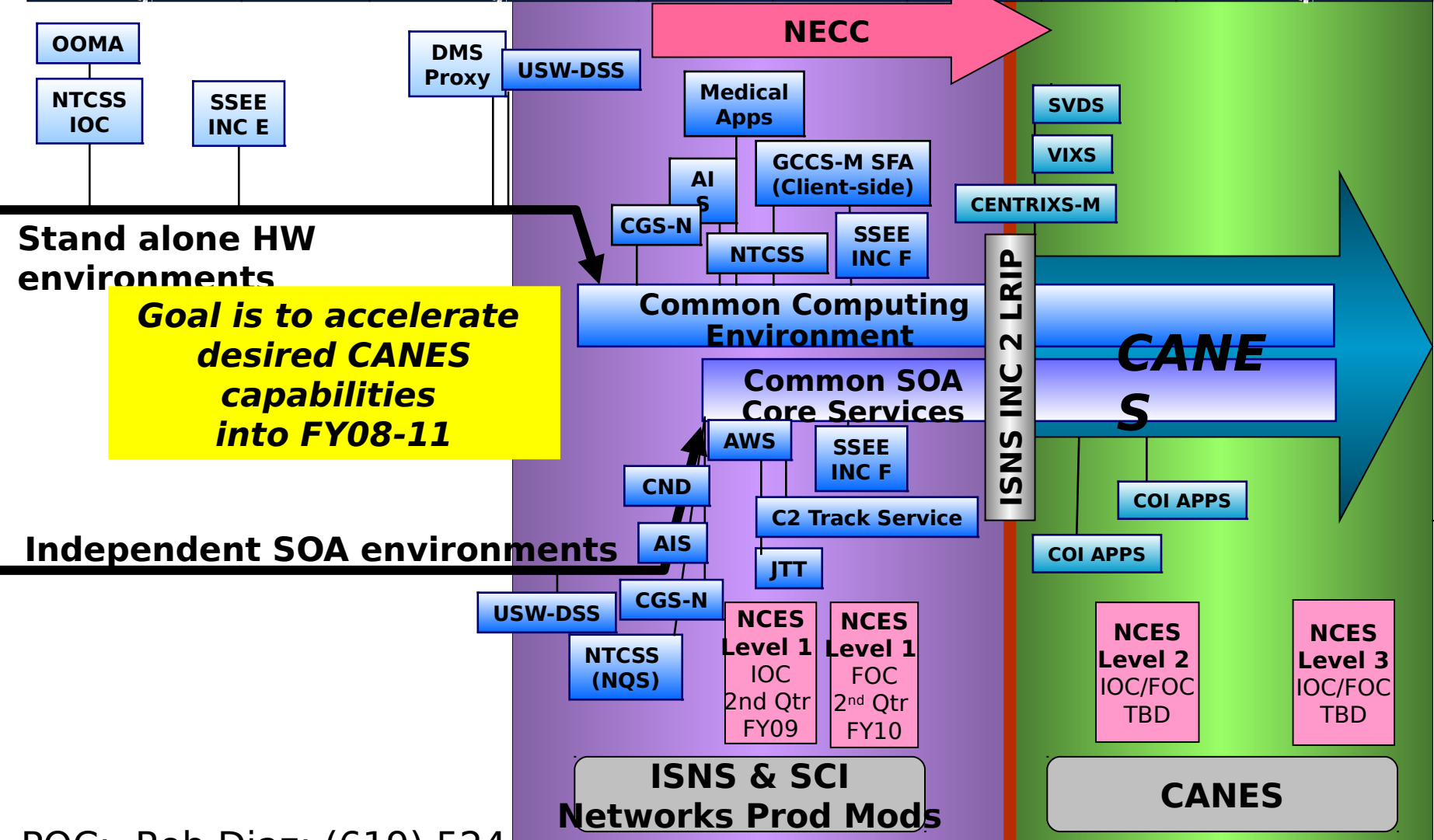
*** NOTE: Excludes LPD 4 and LPD 17**



ISNS Mod and CANES Implementation Strategy



FY 99	FY 04	FY 05	FY 06	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 20
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Definitions



- Common Computing Environment
 - A common set of hardware and software standard configurations, along with common security and policies, which achieve interoperable communications, data and resource sharing across the afloat enterprise at a stated level of performance.
- Service Oriented Architecture
 - A Service Oriented Architecture (SOA) is a software design discipline in which application and infrastructure functionality are implemented as shared, reusable services.
- Early Adopters
 - Programs and applications that will use CANES Lite CCE and SOA



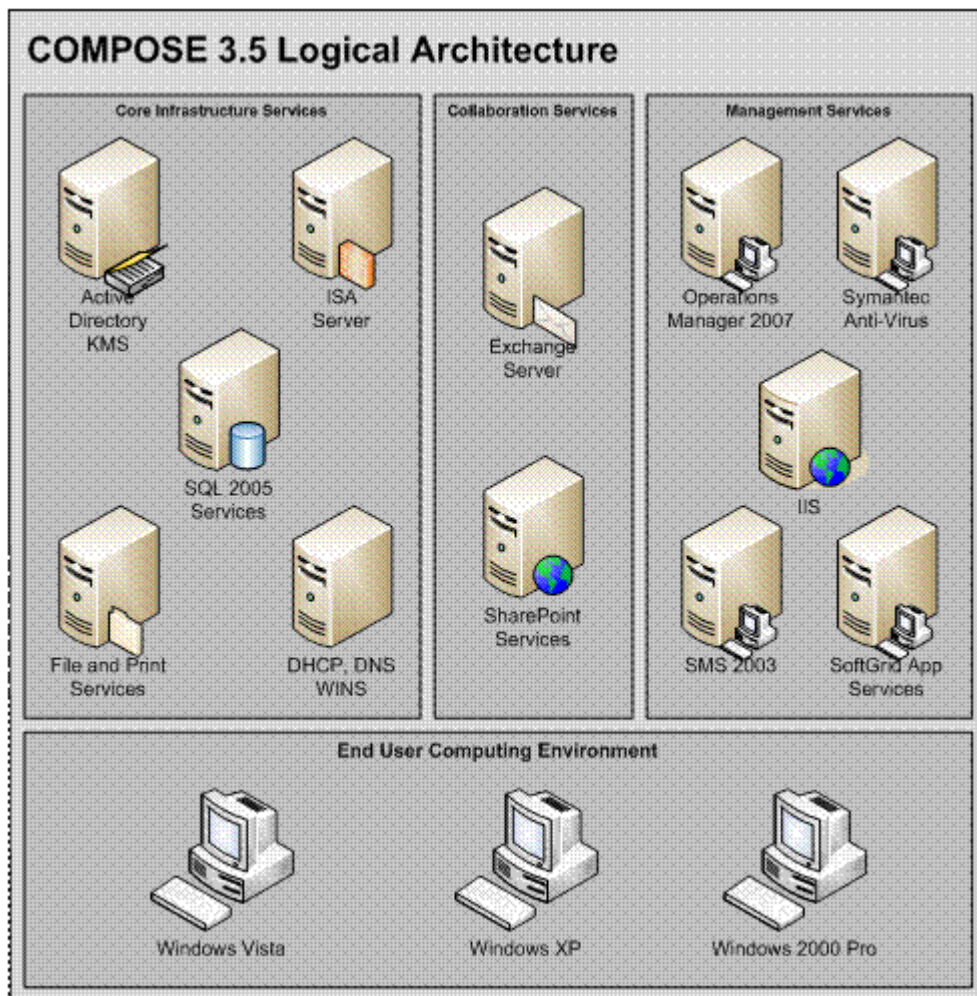
ISNS Inc 1 Production Mods are Not CANES



- Comprises only a fraction of CANES defined capabilities
 - Integrated Voice, Video and Data, Collaboration Tools, MLS/CDS, Information Mgmt Storage, Improved Network Mgmt Functions, etc. not included
- Mods do not provide a collapsed infrastructure
 - SCI, SECRET, Coalition, and UNCLAS enclaves not merged onto one common computing environment until CANES
- Network infrastructure fielding not totally synchronized
 - ISNS and SCI Networks will be synchronized as much as baseline fielding plan allows
 - Shore, CENTRIXS and SubLAN not included
- Mods will provide initial SOA for Early Adopters
 - Scaled down core services provide first instantiation of SOA within the Afloat C4I community
 - Full CANES SOA provides necessary federation for communities in addition to C4I (e.g. Weapons, Airborne, etc.)

COMPOSE 3.5

Logical Architecture



- Componentized infrastructure
- Separation of the core services from the end user environment.
- Building on COMPOSE 3.0 to add management services.
- Windows SharePoint services added for collaboration.
- Application virtualization services provided by SoftGrid.
- Support for three desktop platforms for backward compatibility.
- Categorizing COMPOSE 3.5 into two platforms:
 - COMPOSE 3.5 Standard
 - COMPOSE 3.5 Basic

COMPOSE = Common PC Operating Environment System



COMPOSE 3.5 Highlights



- System Management Server (SMS)
 - Automated operating system deployment
 - Standard baseline image
 - IAVA patch deployment, installation and reporting
 - Hardware and software inventory collection and reporting
 - Software metering
 - Configuration baseline compliance alerting and reporting
 - Remote administration of servers via Microsoft Remote Desktop
- System Center Operations Manager (SCOM)
 - Monitors performance, health, config of O/S, services and apps
 - Client side monitoring via management packs
 - Data warehouse for long term trend analysis
 - Collection and archiving of event logs from managed hosts



COMPOSE 3.5

Highlights (cont)



- Support for non-Microsoft operating systems
 - Authentication of non-MS OS's to AD
 - Quest Management Xtensions (QMX) (formerly Vintela Management Xtensions) provides plug-ins to SMS and SCOM management console
- Security
 - Cryptographic logon supported
 - Microsoft PKI not needed
 - SPAM and malware umbrella product
 - Module-based computer security policies
 - Re-evaluate current GPO design, determine proper application
 - Non-domain polices delivered via SMS



COMPOSE 3.5

Workstation Applications



- Office Pro SP2 or 2007 Pro
- WinZip 11
- WS-FTP Pro
- SoftGrid v4 Client
- COE Message Processor
- Outlook Classification Tool
- Data Access Components
- Adobe Acrobat Reader 8.0
- Java Runtime Environment
- SMS 2003 Advanced Client
- ActivClient 6.0 ActivCard Gold
- File Transfer Manager 5.0.0.27
- Symantec Antivirus Corporate Edition
- Real Player, Shockwave and Flash players, Quick Time
- Active Identity, Desktop Validator, .NET Framework 1.1 and 2.0
- Internet Explorer 6.0 SP1 or 7.0 & Netscape Internet Browser 8.1.2



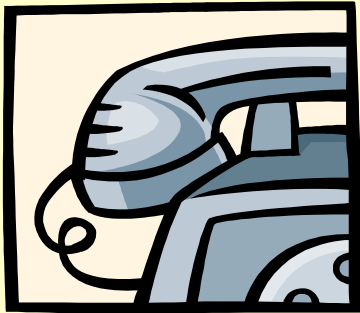
Summary



- ISNS Inc 1 Production Mods will successively build upon each other and will include:
 - Blade Chassis with Blade Servers
 - Network Area Storage
 - Next Generation Backbone & Edge Switches
 - Internal Wireless
 - COMPOSE 3.5
 - Common Computing Environment (CCE)
 - Initial Service Oriented Architecture (SOA) capability
- ISNS Inc 1 Production Mods are not CANES
- COMPOSE 3.5 includes:
 - System Management Server (SMS)
 - System Center Operations Manager (SCOM)
 - Support for non-Microsoft Operating Systems
 - Enhanced Security



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Backup





COMPOSE 3.5

Design Goals/Product Selection

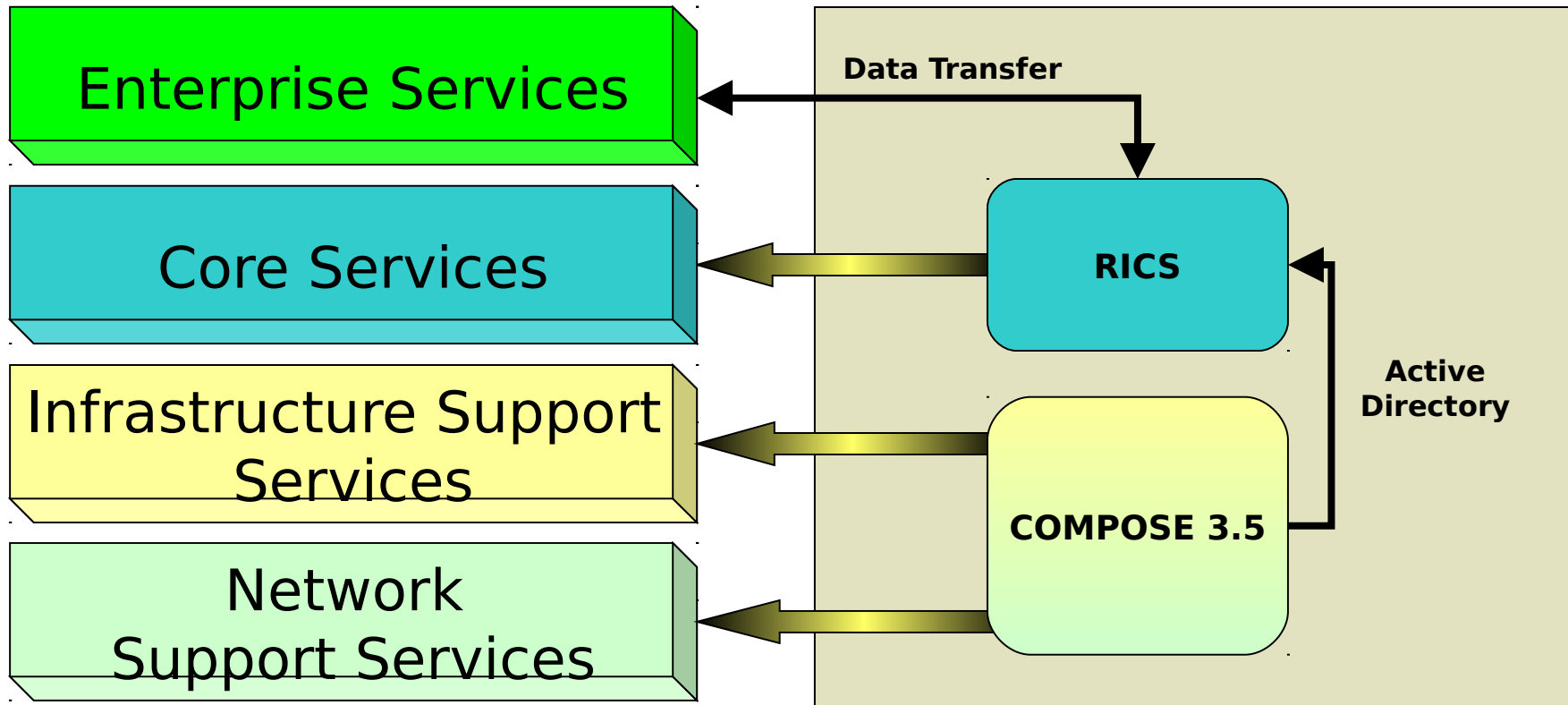


COMPOSE 3.5 Design Goal	COTS Product Selection
Simplified design	-
Improved software management	System Management Server 2003
Improved software service monitoring (Active Directory, Exchange)	System Center Operations Manager 2007
Microsoft optimized solution	-
Better documentation of initial configuration settings	-
Improved configuration management reporting	SMS/SCOM
Better management of the PPL/SSIL process	SMS/SoftGrid
Improved collaboration tools	SharePoint services...
Virtualization services	VMWare / Microsoft Virtual Server
Improved database storage services	SQL 2005
Improved workstation components	Vista, Office 2007



CANES Lite Capabilities

COMPOSE 3.5



RICS = CANES Reference Implementation of Core Service